CW#92&HW#92: Rhombus

Geometry  
Due: Tuesday, March 8th

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP:\_\_\_\_\_

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| Objective | YWBAT find angle measures of a rhombus. | |
| Guided Notes: Label all the missing angles.  50° | | * Opposite angles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ angles are supplementary. * Diagonals \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ each other, and create   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ degree \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at the point of intersection. The diagonals also \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the angles at each vertex.   * All sides are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| 1. Label all missing angles.  50° | | 2. Label all missing angles.  4 in  4 in  4 in  150°  4 in |
| 3. *FDIG* is a rhombus. Find m∠*F* .  *F*  3x    *D*  4x - 10  *G*  *I* | | 4. m∠H = 6x + 5 and m∠A = 2x – 3. Find m∠H in degrees.  *M*  *H*  *A*    *T* |
| 5. *m∠D* = 63°. *m∠CAE* = 12x – 7 and *m∠BAE* = 3x – 9.  Solve for x.  3x - 9  12x - 7 | | 6. Which of the following must be true about the angles in rhombus *ABCD*?   1. ∠7≅∠3 2. ∠8 ≅ ∠1 3. ∠1 ≅ ∠3 4. ∠4 ≅ ∠5   Explain: |

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| Objective | YWBAT use the properties of the diagonals [perpendicular bisectors and angle bisectors] of a rhombus to solve for the diagonals or side lengths. | |
| 7.   1. Find the length of each diagonal.   AC =    DB =   B  C  D  A  17 ft  11 ft   1. Find the side length of rhombus ABCD   Side length = | | 8.   1. Find the length of each diagonal.   GE =   DF =   G  F  E  D  50 in.  40 in |
| 1. Find the side lengths of Rhombus ABCD with AC = 10 and BD = 17.   A  B  D  C  Side Length = | | 1. Find the side length of diagonal *WY*.   X  W  Y  Z  *WY* =  30  17  17  17  17 |
| 1. ∠EAB is 63°, and AE = 5 cm. Find the side length of rhombus *ABCD.*     Side length = | | 1. *DRAK* is a rhombus. If ∠*RDK* = 143°, find the the length of RE.   E  A  R  D  K  RE *=* |

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| Objective | YWBAT find the area of a rhombus using at least two methods. | | | |
| AREA IN TWO METHODS Find the area of each rhombus using at least two methods. Check to make sure that both methods give you the same answer! | | | | |
| 13. ../../../../../Desktop/Screen%20Shot%202016-03-06%20at%209.12.00%20AM | | | 14. ../../../../../Desktop/Screen%20Shot%202016-03-06%20at%209.14.43%20AM | |
| Method 1: | | Method 2: | Method 1: | Method 2: |
| 15.  9 m  5 m | | | 16.  17 ft  11 ft | |
| Method 1: | | Method 2: | Method 1: | Method 2: |

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| Objective | You will be able to find the area and perimeter of a rhombus. You will be able to solve for the height and side lengths of a rhombus. |
| MULTISTEP For each problem below, use strategies for solving right triangles in order find the dimensions you need to answer each problem. | |
| 17. Find the area and perimeter of the rhombus.  50 in.  40 in  Area =  Perimeter = | 18. Find the area and perimeter of the rhombus.  15 ft  11 ft    Area =  Perimeter = |
| *../../../../../Desktop/Screen%20Shot%202016-03-06%20at%209.14.43%20AM*19. *m∠G=* 78° and GE = 6 cm. Find the area and perimeter of rhombus *EFGH*.  Area =  Perimeter = | |
| QUADRILATERAL REVIEW Complete the problems below using your knowledge of different quadrilaterals and their properties. | |
| Classify the following quadrilaterals and give at least 1 piece of evidence to support your claim.  ../../../../../Desktop/Screen%20Shot%202016-03-06%20at%2010.17.48%20AM../../../../../Desktop/Screen%20Shot%202016-03-06%20at%2010.17.45%20AM../../../../../Desktop/Screen%20Shot%202016-03-06%20at%2010.18.10%20AM20. 21.  22. | |